

# Maryland Department of Health and Mental Hygiene 201 W. Preston Street • Baltimore, Maryland 21201

Martin O'Malley, Governor - Anthony G. Brown, Lt. Governor - Joshua M. Sharfstein, M.D., Secretary

## January 24, 2014

## Public Health & Emergency Preparedness Bulletin: # 2014:03 Reporting for the week ending 01/18/14 (MMWR Week #03)

#### **CURRENT HOMELAND SECURITY THREAT LEVELS**

National: No Active Alerts

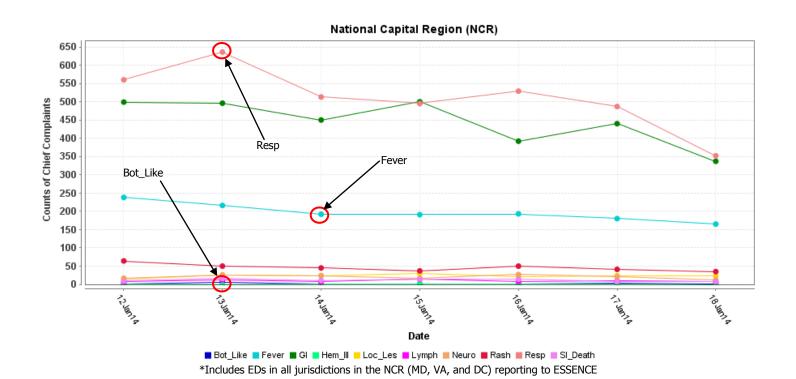
Maryland: Level Four (MEMA status)

#### SYNDROMIC SURVEILLANCE REPORTS

#### ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):

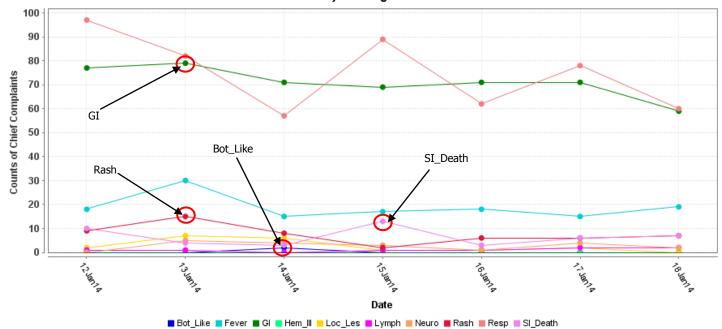
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

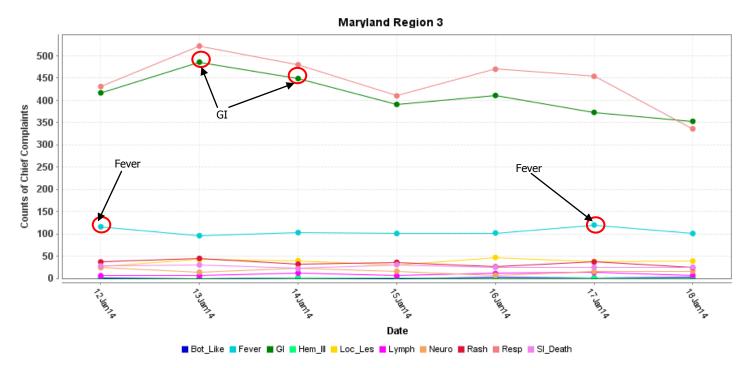


#### **MARYLAND ESSENCE:**

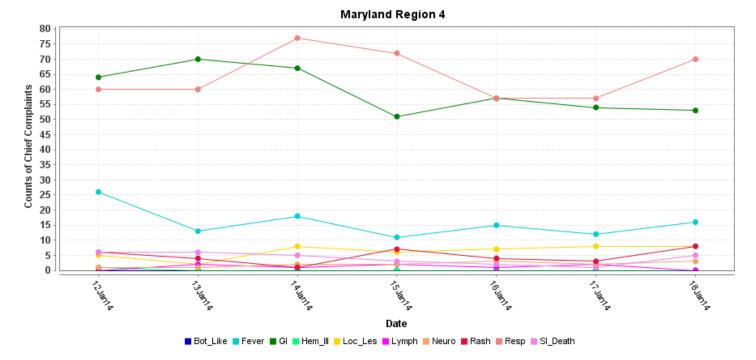
#### Maryland Regions 1 and 2



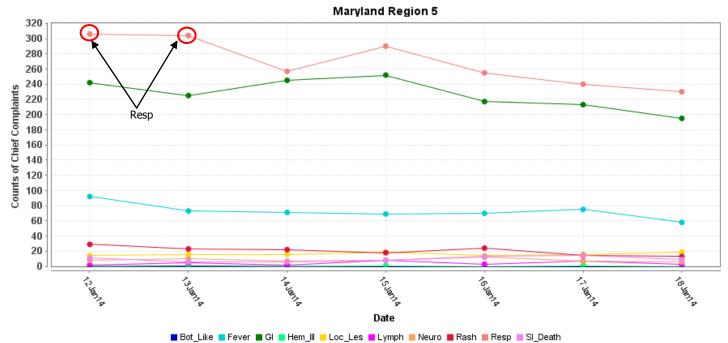
<sup>\*</sup> Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



<sup>\*</sup> Region 3 includes EDs in Anne Arundel, Baltimore City, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



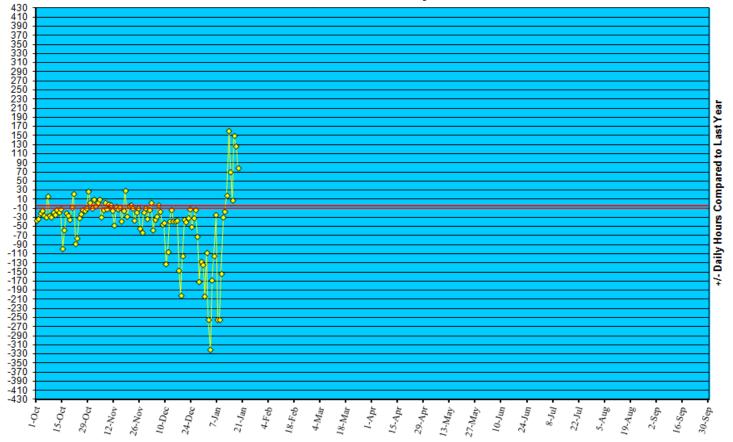
<sup>\*</sup> Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE



<sup>\*</sup> Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

**YELLOW ALERT TIMES (ED DIVERSION):** The reporting period begins 10/01/13.

# Statewide Yellow Alert Comparison Daily Historical Deviations October 1, '13 to January 18, '14



#### **REVIEW OF MORTALITY REPORTS**

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

#### **MARYLAND TOXIDROMIC SURVEILLANCE**

**Poison Control Surveillance Monthly Update:** Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in December 2013 did not identify any cases of possible public health threats.

#### **REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS**

#### COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	<u>Aseptic</u>	<u>Meningococcal</u>
New cases (January 12 - January 18, 2014):	8	0
Prior week (January 5 - January 11, 2014):	14	0
Week#03, 2013 (January 13 – January 19, 2013):	4	0

#### 10 outbreaks were reported to DHMH during MMWR Week 03 (January 12 - 18, 2014)

#### 3 Gastroenteritis Outbreaks

3 outbreaks of GASTROENTERITIS in Nursing Homes

#### 2 Foodborne Outbreak

2 outbreaks of GASTROENTERITIS/FOODBORN associated with Restaurants

#### **4 Respiratory Illness Outbreaks**

- 1 outbreak of INFLUENZA in a Nursing Home
- 1 outbreak of ILI in an Assisted Living Facility
- 1 outbreak of ILI/PNEUMONIA in an Assisted Living Facility
- 1 outbreak of PNEUMONIA in an Assisted Living Facility

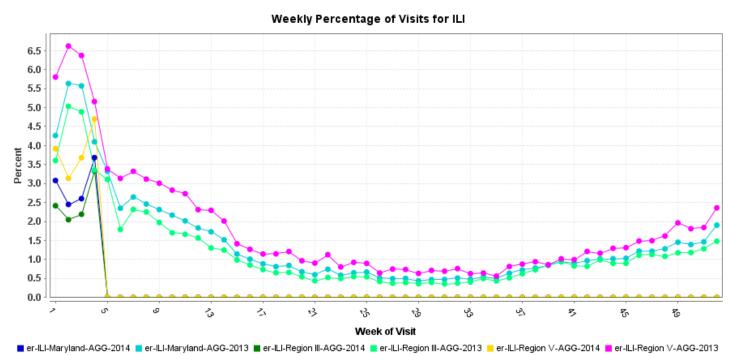
#### **MARYLAND SEASONAL FLU STATUS**

Seasonal Influenza reporting occurs October through May. Seasonal influenza activity for Week 3 was: Widespread with Low Intensity

#### SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

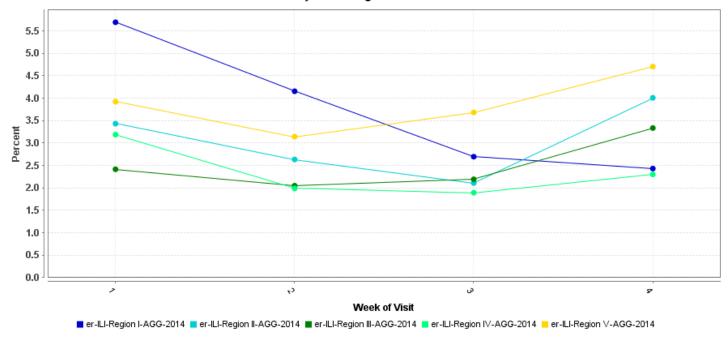
Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



<sup>\*</sup> Includes 2012 and 2013 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total

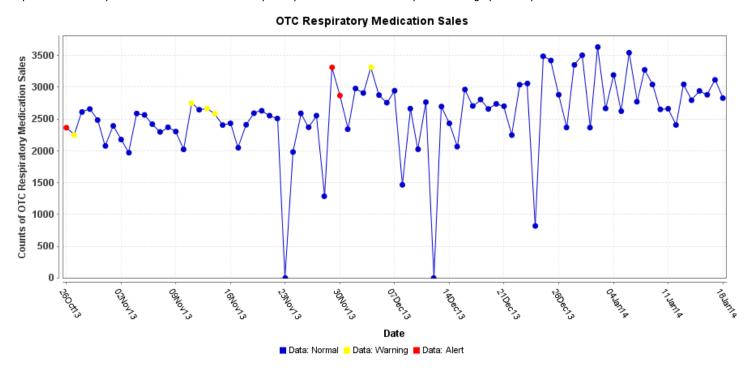
#### Weekly Percentage of Visits for ILI



\*Includes 2013 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

#### **OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:**

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



#### PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

**WHO update:** The current WHO phase of pandemic alert for avian influenza is ALERT. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

Influenza A (H7N9) is one of a subgroup of influenza viruses that normally circulate among birds. Until recently, this virus had not been seen in people. However, human infections have now been detected. As yet, there is limited information about the scope of the disease the virus causes and about the source of exposure. The disease is of concern because most patients have been severely ill. There is no indication thus far that it can be transmitted between people, but both animal-to-human and human-to-human routes of transmission are being actively investigated.

**Alert phase**: This is the phase when influenza caused by a new subtype has been identified in humans. Increased vigilance and careful risk assessment, at local, national and global levels, are characteristic of this phase. If the risk assessments indicate that the new virus is not developing into a pandemic strain, a de-escalation of activities towards those in the interpandemic phase may occur. As of December 10, 2013, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 648, of which 384 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 59%.

AVIAN INFLUENZA, HUMAN (H7N9): A total of 6 H7N9 influenza infections were reported in 2 Chinese provinces and the city of Shanghai today [17 Jan 2014], keeping the volume of new cases within striking distance of peak activity the country saw during the outbreak's 1st wave last spring [2013]. China's National Health and Family Planning Commission today addressed the guickly rising number of H7N9 cases, especially since the 1st of the year [2014], according a report today from Xinhua, the state news agency. It said 28 cases have been reported so far. The cases are scattered, and so far no mutations have been identified that signal a threat to human health, the commission said in a statement. It added that the virus is still spreading from birds to humans and that the chance of a large-scale outbreak is slim. However, it said the cases are likely to continue rising, alongside the increase in poultry trade to meet the demand for Spring Festival celebrations. Hong Kong's Centre for Health Protection (CHP) addressed 4 of the cases in a statement today [17 Jan 2014], based on information it received from mainland health officials. The patients include a 54 year old man from Shanghai and 3 men from Zhejiang province, ages 54, 62, and 66. No details were available, other than that the 4 patients are hospitalized. Meanwhile, Fujian province reported 2 more cases, according to statements in Chinese from provincial health authorities that were translated by and posted on the Avian Flu Diary infectious disease blog. The patients are a 38 year old woman from Quanzhou who is hospitalized in a critical condition in Jinjiang and a 54 year old man who is hospitalized in critical condition in Fuzhou. In addition, another possible H7N9 case from Zhejiang province was flagged by analysts at the FluTrackers infectious disease message board, based on their translations of Chinese-language media reports. According to the group's translation, the patient is a 35 year old man from the city of Cixi who is hospitalized in Ningbo. He had been exposed to poultry before he got sick. Today's confirmed case announcements lift the H7N9 outbreak total to 194 infections, including 53 deaths. In a related development, the World Health Organization (WHO) provided more details on 4 cases that were originally reported by China on [15 Jan 2014]. All the patients are middle-aged adult men who got sick the 1st week of January and are hospitalized in critical condition. Two of them -- a 35 year old from Shanghai and a 55 year old from Guangdong province -- had been exposed to poultry before becoming ill. WHO today [17 Jan 2014] also released recommendations on antiviral prophylaxis for close contacts of confirmed H7N9 patients and those who have had high-risk exposure to poultry or contaminated environments. The group said the guidance is part of a larger working group effort to develop standards on the clinical management of flu, and it is releasing the H7N9 part early. People who have unprotected close contact with a patient with a confirmed H7N9 infection or were exposed to poultry, live poultry markets, or other environments contaminated with the virus should be monitored for 7 days after the last known exposure. If a patient experiences a fever or respiratory symptoms, clinicians should immediately begin empiric treatment with a neuraminidase inhibitor for 5 days, WHO said. Clinicians should also collect a respiratory sample for H7N9 testing. Routine post-exposure prophylaxis isn't recommended for asymptomatic patients unless they had substantial unprotected or prolonged exposure to a patient with an H7N9 infection and are at higher risk for complications. WHO's routine prophylaxis recommendation also extends to unprotected health workers, especially those who conduct aerosol-generating procedures. The quidance is similar to prophylaxis recommendations released by the US Centers for Disease Control and Prevention (CDC) in September [2013], which also call for a tiered approach based on risk, but suggest that contacts be monitored for 10 days. CDC's document is geared toward preventing further spread of the virus in the event of a case detected in the United States.

#### **NATIONAL DISEASE REPORTS\***

**E. COLI EHEC (CONNECTICUT):** 13 January 2013, A number of Escherichia coli cases were reported in the Windham/Willimantic area [Windham County, Connecticut]. The North Central District Health Department said 7 cases were confirmed. All of them required the patients to be hospitalized, according to the department. Health officials said 5 of them were mild cases, but 2 were a severe complication of the bacterial infection known as hemolytic uremic syndrome, or HUS. They said the people with the mild cases have already been released, but 1 of the 2 with HUS remains in the hospital. The Department of Public Health said it is investigating and believes all of the people were infected between mid-December [2013] and Christmas time [end of December 2013]. However, it said the source of the E. coli has not been found. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) \*Non-suspect case

#### **INTERNATIONAL DISEASE REPORTS\***

**NIPAH ENCEPHALITIS (BANGLADESH):** 18 January 2014, Health specialists have expressed concerns about a potential fresh outbreak of the deadly Nipah virus (NiV), following the confirmation of 2 recent deaths from NiV infection and 4 more suspected fatalities. Laboratory tests at the Institute of Epidemiology, Disease Control and Research (IEDCR) has confirmed that 2 boys -- aged 13 and 14 -- died from NiV [Nipah virus] infection at Shibaloy and Ghior of Manikganj district [Dhaka division] on the last week of December last year [2013]. Both of them died after being infected with the virus by drinking raw date-palm sap (Khejurer Rosh). Sources said it was also suspected that the deaths of 4 more people, including a 5 year old boy at the Rajshahi Medical College Hospital (RMCH) last week [week ending 11 Jan 2014], may also be linked to NiV infection. The deceased were a man of 45 from Bagha upazila of Rajshahi; a 5 year old from Pabna's Ishwardi; an individual of 20 from Naogaon; and another 20 year old from Natore's Bagatipara [all in Rajshahi division]. Doctors at the RMCH said they suspected that the deaths may have been caused by Nipah infection, as all 4 patients had the

history of drinking raw date-palm sap. Dr. Mahmudur Rahman, director of the IEDCR, however, told the Dhaka Tribune yesterday [11 Jan 2014] that the Nipah virus was not found in the single sample of the deceased that had so far been tested at the lab. Samples from 2 other deceased would be tested by Monday [13 Jan 2014], he said, adding that sample from another patient had not yet arrived at the IEDCR. As a preventative measure for the disease, Dr. Mahmudur urged people not to drink raw date-palm sap and also urged the product's sellers to refrain from selling raw sap. A mass awareness program about the disease was also needed across the country, he added. Seeking anonymity, several senior health officials said the health education bureau spent money by publishing NiV health message advertisements on newspapers, but failed to initiate any direct program to create awareness among the masses. Dr. Be-Nazir Ahmed, director of the Communicable Disease Control (CDC), said the CDC had launched a program at 18 upazilas in the Nipah-prone areas to create awareness among the raw date-palm sap sellers. The CDC director however said he had no knowledge about the 4 suspected NiV deaths in Rajshahi. The NiV -- an enveloped RNA virus belonging to genus Henipavirus -- is a highly pathogenic paramyxovirus, which is transmitted by the drinking of virus-contaminated raw date palm sap or through close physical contact with Nipah infected patients. The NiV infection has a fatality rate of 78 per cent, with 148 people out of the 189 reported cases between 2001 and May 2013 succumbing to the disease in the country. (Viral Encephalitis is listed in Category B on the CDC List of Critical Biological Agents) \*Non-suspect case

**ANTHRAX (ZIMBABWE):** 17 January 2014, A total of 4 villagers from Mwanyisa Village near Checheche Growth Point in Chipinge South [Manicaland Province, Zimbabwe] were recently admitted in hospital after consuming meat infected with anthrax. The outbreak was confirmed on [3 Jan 2014] after villagers visited St Peter's Mission Hospital for treatment. The villagers had all the symptoms of an anthrax attack, prompting health authorities at the hospital to contact the Veterinary Services Department. Chipinge district administrator Mr. Edgars Seenza confirmed the outbreak and said personnel from the Veterinary Services Department rushed to Mwanyisa Village where they confirmed the outbreak of anthrax. A total of 15 cattle and 3 goats had succumbed to the disease. The Veterinary Services Department alerted other arms of the Government and the Civil Protection Unit taskforce visited homesteads in Mwanyisa Village on an awareness campaign. However, at one of the homesteads in Mwanyisa they found the people consuming meat of the dead animals. Others had sold the remaining portions to their neighbours. The team urged the villagers to stop eating the meat and burn or bury the livestock. "In mitigation against the spread of the disease, the Veterinary Services Department managed to vaccinate all animals in the anthrax prone area. The health department is educating the community about the anthrax outbreak and the Zimbabwe Republic Police has temporarily banned livestock movement in the area in order to stop the spread of the disease to other areas," said Mr Seenza. He said the situation was now under control. (Anthrax is listed in Category A on the CDC List of Critical Biological Agents) \*Non-suspect case

LASSA FEVER (NIGERIA): 16 January 2014, The Bauchi State Primary Health Care Development Agency has warned people of the state to take measures to protect themselves against Lassa fever, as the disease recently killed a medical doctor. It was gathered that the doctor became infected after he treated a patient with Lassa fever virus. Executive chairman of the agency, Dr. Nisser Ali Umar, while briefing newsmen yesterday as part of the sensitization exercise embarked upon to educate citizens on the dangers of the disease, said: "The disease is deadly and infectious. Recently, a medical doctor got infected by the disease after treating a patient who had the fever. The doctor died, and about 8 other doctors got infected after treating a pregnant woman who had the disease." Umar said the state recorded 7 cases of Lassa fever between 2012 and March 2013, but with only a single death. He said the federal and state governments have taken adequate steps to address the problem. "People can easily contract the disease by eating rat [meat] or eating food contaminated by rat urine," he said. He advised people with suspected cases to report to the nearest hospital for treatment. He commended the Federal Ministry of Health for providing Ribavirin tablets and enough personal protective equipment to health care providers in the state to prevent nosocomial infection. (Viral Hemorrhagic Fever is listed in Category A on the CDC List of Critical Biological Agents) \*Non-suspect case

**HANTAVIRUS (URUGUAY):** 15 January 2014, A 28 year old man who worked on a dairy farm in Constancia, a small locality of Paysandu near the capital, [has] died of [a] hantavirus [infection] according to laboratory confirmation. Olga Rodriguez of the Paysandu Departmental Epidemiology Office explained that this is a virus that circulates in the country, but this is the 1st case registered in Paysandu and the 2nd north of Rio Negro since 2010, when the death of another rural worker in Artigas was reported. This hantavirus is transmitted by infected rodents and in humans produces 2 types of clinical disease: a type of hemorrhagic fever or severe pulmonary disease. Because of this, reporting to health units is obligatory. Authorities of the Ministry of Public Health made relevant recommendations and are evaluating the environment due to the possibility that other cases may emerge and "to prevent other healthy people from become ill," it was stated. (Emerging Infectious Diseases are listed in Category C on the CDC List of Critical Biological Agents) \*Non-suspect case

National and International Disease Reports are retrieved from http://www.promedmail.org/.

#### OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: <a href="http://preparedness.dhmh.maryland.gov/">http://preparedness.dhmh.maryland.gov/</a> or follow us on Facebook at <a href="http://www.facebook.com/MarylandOPR">www.facebook.com/MarylandOPR</a>.

Maryland's Resident Influenza Tracking System: <a href="http://dhmh.maryland.gov/flusurvey">http://dhmh.maryland.gov/flusurvey</a>

**NOTE**: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail us. If you have information that is pertinent to this notification process, please send it to us to be included in the routine report.

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### Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents

Table: Text-based Syndrome Case Definitions and Associated Category A Conditions

Syndrome	Definition	Category A Condition
Botulism-like	ACUTE condition that may represent exposure to botulinum toxin  ACUTE paralytic conditions consistent with botulism: cranial nerve VI (lateral rectus) palsy, ptosis, dilated pupils, decreased gag reflex, media rectus palsy.  ACUTE descending motor paralysis (including muscles of respiration)  ACUTE symptoms consistent with botulism: diplopia, dry mouth, dysphagia, difficulty focusing to a near point.	Botulism
Hemorrhagic Illness	SPECIFIC diagnosis of any virus that causes viral hemorrhagic fever (VHF): yellow fever, dengue, Rift Valley fever, Crimean-Congo HF, Kyasanur Forest disease, Omsk HF, Hantaan, Junin, Machupo, Lassa, Marburg, Ebola ACUTE condition with multiple organ involvement that may be consistent with exposure to any virus that causes VHF  ACUTE blood abnormalities consistent with VHF:	VHF
	leukopenia, neutropenia, thrombocytopenia, decreased clotting factors, albuminuria	
Lymphadenitis	ACUTE regional lymph node swelling and/ or infection (painful bubo- particularly in groin, axilla or neck)	Plague (Bubonic)
Localized Cutaneous Lesion	SPECIFIC diagnosis of localized cutaneous lesion/ ulcer consistent with cutaneous anthrax or tularemia ACUTE localized edema and/ or cutaneous lesion/ vesicle, ulcer, eschar that may be consistent with cutaneous anthrax or tularemia INCLUDES insect bites EXCLUDES any lesion disseminated over the body or generalized rash EXCLUDES diabetic ulcer and ulcer associated with peripheral vascular disease	Anthrax (cutaneous) Tularemia
Gastrointestinal	ACUTE infection of the upper and/ or lower gastrointestinal (GI) tract SPECIFIC diagnosis of acute GI distress such as Salmonella gastroenteritis ACUTE non-specific symptoms of GI distress such as nausea, vomiting, or diarrhea EXCLUDES any chronic conditions such as inflammatory bowel syndrome	Anthrax (gastrointesti nal)

DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION

Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents (continued from previous page)

Syndrome	Definition	Category A Condition
Respiratory	ACUTE infection of the upper and/ or lower respiratory tract (from the oropharynx to the lungs, includes otitis media)  SPECIFIC diagnosis of acute respiratory tract infection (RTI) such as pneumonia due to parainfluenza virus  ACUTE non-specific diagnosis of RTI such as sinusitis, pharyngitis, laryngitis  ACUTE non-specific symptoms of RTI such as cough, stridor, shortness of breath, throat pain  EXCLUDES chronic conditions such as chronic bronchitis, asthma without acute exacerbation,	Anthrax (inhalational) Tularemia Plague (pneumonic)
	chronic sinusitis, allergic conditions (Note: INCLUDE acute exacerbation of chronic illnesses.)	
Neurological	ACUTE neurological infection of the central nervous system (CNS)  SPECIFIC diagnosis of acute CNS infection such as pneumoccocal meningitis, viral encephailitis  ACUTE non-specific diagnosis of CNS infection such as meningitis not otherwise specified (NOS), encephailitis NOS, encephalopathy NOS  ACUTE non-specific symptoms of CNS infection such as meningismus, delerium  EXCLUDES any chronic, hereditary or degenerative conditions of the CNS such as obstructive hydrocephalus, Parkinson's, Alzheimer's	Not applicable
Rash	ACUTE condition that may present as consistent with smallpox (macules, papules, vesicles predominantly of face/arms/legs)  SPECIFIC diagnosis of acute rash such as chicken pox in person > XX years of age (base age cut-off on data interpretation) or smallpox  ACUTE non-specific diagnosis of rash compatible with infectious disease, such as viral exanthem EXCLUDES allergic or inflammatory skin conditions such as contact or seborrheaic dermatitis, rosacea EXCLUDES rash NOS, rash due to poison ivy, sunburn, and eczema	Smallpox
Specific Infection	ACUTE infection of known cause not covered in other syndrome groups, usually has more generalized symptoms (i.e., not just respiratory or gastrointestinal) INCLUDES septicemia from known bacteria INCLUDES other febrile illnesses such as scarlet fever	Not applicable

# Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents (continued from previous page)

Definition	Category A Condition
ACUTE potentially febrile illness of origin not specified INCLUDES fever and septicemia not otherwise specified INCLUDES unspecified viral illness even though unknown if fever is present	Not applicable
EXCLUDE entry in this syndrome category if more specific diagnostic code is present allowing same patient visit to be categorized as respiratory, neurological or gastrointestinal illness syndrome	
ACUTE onset of shock or coma from potentially infectious causes EXCLUDES shock from trauma INCLUDES SUDDEN death, death in emergency room, intrauterine deaths, fetal death, spontaneous abortion, and still births EXCLUDES induced fetal abortions, deaths of	Not applicable
	ACUTE potentially febrile illness of origin not specified INCLUDES fever and septicemia not otherwise specified INCLUDES unspecified viral illness even though unknown if fever is present  EXCLUDE entry in this syndrome category if more specific diagnostic code is present allowing same patient visit to be categorized as respiratory, neurological or gastrointestinal illness syndrome  ACUTE onset of shock or coma from potentially infectious causes  EXCLUDES shock from trauma  INCLUDES SUDDEN death, death in emergency room, intrauterine deaths, fetal death, spontaneous abortion, and still births